

## ACHIEVE MAXIMUM TOOL LIFE

Selection of die clearance should be based upon the type and thickness of material to be punched. Incorrect selection of die clearance can cause the following problems:

- If clearance is too small, tool wear will increase and galling may result.
- If clearance is too big, slug pulling may result including excessive burrs.

Select die clearance by using the table and shown below.

**Die Clearance Selection Chart**

Material	Minimum	Best	Maximum
Copper, 1/2 Hard	8%	12%	16%
Brass, 1/2 Hard	6%	11%	16%
Mild Steel	10%	15%	20%
Steel 0.50C	12%	18%	24%
Aluminum, Soft	5%	10%	15%
Stainless Steel	15%	20%	25%

**Example: Mild Steel with a Thickness of 0.079" (2mm)**

"Best" Die Clearance = 15% of .079" (2mm) = .012" (0.30mm)

<b>EXAMPLE</b>	%		MATERIAL THICKNESS		TOTAL CLEARANCE
	└───┘		└───┘		└───┘
	<b>15%</b>	<b>X</b>	<b>.079"</b> <b>(2mm)</b>	<b>=</b>	<b>.012"</b> <b>(0.30mm)</b>

*Note: Wilson Tool recommends the "Best" % total clearance for optimum performance. However, as material thickness increases approaching .156" (4mm), the "Maximum" die clearance percentage should be selected from the table above.*